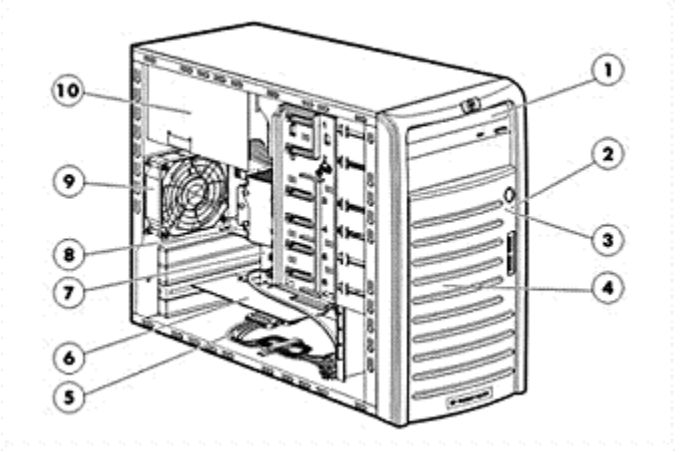
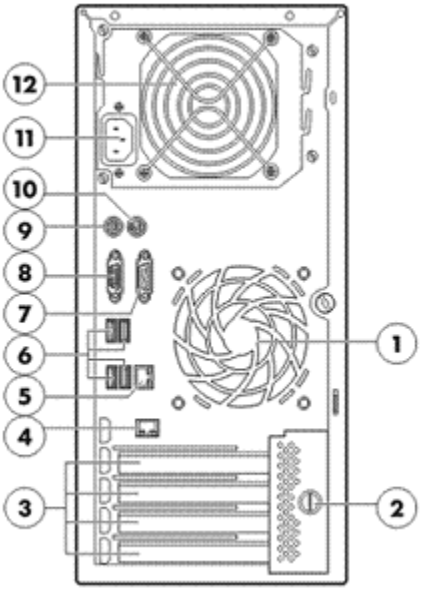
Overview





Front View:

1. DVD-ROM Drive
2. Power LED
3. Drive Activity LED
4. Front Bezel
5. SAS cable (SAS model only)
6. HDD controller card (Optional)
7. System Board
8. HP LO 100c Management Card (Optional HP PL100 G5 Lights-Out 100c Kit ALL)
9. System Fan
10. 365W Power Supply

Rear View:

1. System fan
2. PCI slot cover retainer
3. PCI slot covers
4. HP LO 100c Management Port (Optional)
5. LAN Port (RJ-45)
6. Rear USB 2.0 Ports
7. Serial Ports
8. VGA Port
9. PS/2 Keyboard Port
10. PS/2 Mouse Port
11. Power Supply Outlet
12. Power supply unit (PSU) fan

What's New

- Support for Dual-Core Intel® Xeon® E3110 and Dual-Core Intel® Core 2 E4600 processors
- Standard ProLiant Easy Set Up CD - simplifies deployment and installation process and has a SmartStart "like" look and feel for a consistent user experience across ProLiant servers

Overview

At A Glance

The HP ProLiant ML110 G5 server provides all the necessary server features in an affordable, functional package. The latest Intel processors, such as Intel Xeon and Pentium D processors, provide the necessary computing power, while a mix of PCI and PCI-Express slots delivers the expandability for the future that small businesses require. Also, the ML110 G5 can be upgraded with the cost-effective HP Lights-Out 100c Remote Management Card (RMC) for remote sites or second offices. Like all HP ProLiant products, the ML110 G5 comes with ProLiant reliability. The ProLiant ML110 G5 is a value-packed server with appropriate technology suitable for small to medium businesses.

- **Processor:**
  - Quad-Core Intel® Xeon® processors 3200 sequence
  - Dual-Core Intel® Xeon® processors 3100 sequence
  - Dual-Core Intel® Xeon® processors 3000 sequence
  - Dual-Core Intel® Core 2 processors 4000 sequence
  - Dual-Core Intel® Pentium® processors 2000 sequence
  - Single-Core Intel® Celeron® processors 400 Sequence
- **Memory:**
  - 512 MB Standard (1GB on SAS Models) / 8 GB Maximum of PC6400 DDR2, Unbuffered ECC
- **Storage Controller:**
  - SATA Models: Integrated 6 ports SATA controller with embedded RAID (4 ports available for Hard Disks)
  - SAS Models: HP SC40Ge Host Bus Adapter with RAID 0, 1, support
- **Internal Drive Support:**
  - 4 HDD Support:
    - 2.0TB SATA max storage (4 x 500 GB CTO HDD)
    - 1.2TB SAS max storage (4 x 300GB CTO HDD)
- **Network Controller:**
  - Embedded NC105i PCI Express Gigabit Ethernet Server Adapter
- **Expansion Slots:**
  - Slot 1: PCI 32-bit/33MHz at 3.3V
  - Slot 2: PCI-Express x8 connector with x1 link
  - Slot 3: PCI-Express x8 connector with x1 link
  - Slot 4: PCI-Express X8 connector with x8 link
- **USB Ports:**
  - 8 Total USB ports
  - 2 Front
  - 4 Rear
  - 2 Internal (one for tape, one for standard USB device)
- **Management:**
  - Standard Lights Out 100 IPMI 2.0 reporting
  - Optional HP ProLiant G5 Lights Out 100c Remote Management Card
  - Standard HP ProLiant ML110 G5 Easy Set-up CD
- **Form Factor:**
  - Micro ATX tower (4U)
- **Warranty:**
  - Protected by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements SATA hard drives have a one year warranty.

Standard Features

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/ERC/downloads/4AA1-5498ENW.pdf

Processor One of the following depending on Model	Quad-Core Intel® Xeon® Processor X3220 (2.40 GHz, 95W,1066 FSB,8M)* Quad-Core Intel® Xeon ® Processor X3210 (2.13 GHz, 95W,1066 FSB,8M)* Dual-Core Intel® Xeon® Processor E3110 (3.00 GHz, 1333 FSB, 6M)* Dual-Core Intel® Xeon® Processor X3075 (2.66 GHz, 65W,1333 FSB, 4M)* Dual-Core Intel® Xeon® Processor X3065 (2.33 GHz, 65W,1333 FSB, 4M) Dual-Core Intel® Core 2 Processor E4600 (2.40 GHz, 800 FSB, 2M)* Dual-Core Intel® Pentium® Processor E2160 (1.80 GHz, 800FSB, 1M) Single-Core Intel® Celeron® Processor 440 (2.0 GHz, 800 FSB, 512K)* Single-Core Intel® Celeron® Processor 420 (1.6 GHz, 800 FSB, 512K)* * Available through Configure To Order only. See Factory Integration Models section for more details.
Cache Memory One of the following depending on Model	8 MB Level 2 cache (Intel® Xeon® 3200 sequence) 6 MB Level 2 cache (Intel® Xeon® 3320 sequence) 6 MB Level 2 cache (Intel® Xeon® 3110 sequence) 4 MB Level 2 cache (Intel® Xeon® 3000 sequence) 2 MB Level 2 cache (Intel® Core 2 4000 sequence) 1 MB Level 2 cache (Intel® Pentium® 2100 sequence) 512KB Level 2 cache (Intel® Celeron® D)
Chipset	Intel® 3200
Memory Protection	ECC
Memory	Type: PC2-6400 unbuffered DDR2 ECC 800MHz Standard: 512 MB 1GB (SAS Models) Maximum: 8 GB
Network Controller	Embedded NC105i PCI Express Gigabit Ethernet Server Adapter

Standard Features

Expansion Slots #	Technology	Bus Width***	Connector Width	Bus Number*	Device Number**	Form Factor	Notes
1	PCI (33MHZ /3.3Volt)	32-bit	N/A	0	30	Full height slot	
2	PCIe	X1	X8	0	28	Full height slot	
3	PCIe	X1	X8	2	28	Full length, full height slot	
4	PCIe	X8	X8	0	1	Full length, full height slot	

*Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.
** Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).
*** Indicates the number of physical electrical lanes running to a PCI-e connector.
NOTE: PCI-X Interface (PCI 32bit/33MHz compatible)

Storage Controller One of the following depending on Model	SATA Models	Integrated 6 ports SATA controller with embedded RAID (4 ports available for Hard Disks)	
	SAS Models	HP SC40Ge Host Bus Adapter with RAID 0, 1 support	

Storage	**Optical Drive**	SATA DVD-ROM Drive	
	Hard Drives	**SATA**	160GB SATA 7200 rpm Drive
		SAS	72GB SAS 15,000 rpm Drive

Maximum Internal Storage	**Type**		
	SAS (Not-hot plug)	1.2TB	(4 x 300 GB)
	SATA (Non-hot plug)	2TB	(4 x 500 GB*)
	*Offered through Configure-To-Order only. See Factory Integrated Models section for more details		

Standard Features

Interfaces	Parallel	0
	Serial	1
	Pointing Device (Mouse, PS2)	1
	Graphics	1
	Keyboard (PS2)	1
	USB 2.0 Ports	8 total (4 rear, 2 front panel, 2 internal (one for USB Tape connectivity)) **NOTE:** Internal USB ports are optimal for the attachment of HP USB DAT Tape Drives **NOTE:** Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html
	Network RJ-45 (Ethernet)	1
	Management	HP ProLiant G5 Lights-Out 100c Remote Management port (Optional)
Graphics	32MB shared supporting 1600 x 1200 x 16M resolution	
Form Factor	Micro ATX Tower (4U)	
Remote Management	Lights-Out 100c	Lights Out LO100c is a Remote Management Card (RMC) for ProLiant 100 series servers that do not have embedded LO100i. The LO100c has all the features of the LO100i Advanced license and allows customers, or their service providers, to remotely manage ProLiant servers over a LAN or the Internet from anywhere, anytime regardless whether the server is located in the same building, across town, or around the globe. With LO100c, users can acquire complete remote control with Virtual KVM (graphical hardware-based, remote console). Users can also access the server's serial console, control system power, update system firmware and software, as well as monitor system environmental conditions. The LO100c remote management card can be accessed from a web browser or command line interface. This virtual "at-the-server" functionality means administrators stay in control of remote HP ProLiant 100 series servers. The HP Lights-Out100c consists of a management processor and firmware that provides cost-effective, entry-level lights-out functionality, basic system board management functions, and diagnostics. **NOTE:** For more information, please refer to the QuickSpecs for the LO100c found at: http://h18004.www1.hp.com/products/servers/management/remotemgmt/lightsout100/index.html

Standard Features

Core Infrastructure Management	HP ProLiant ML110 G5 Easy Set-up CD	The HP ProLiant Easy Set-up CDs optimize single-server setup, providing a simple way to deploy reliable and consistent server configurations. The HP ProLiant 100 Series Easy Set-up CD ship standard with the ML110 G5. It offers essential single-server deployment tools for HP ProLiant 100 series servers that simplify HP entry server setup, providing a repeatable way to deploy reliable and consistent single-server configurations. The HP ProLiant Easy Set-up CDs assist with the OS installation process by preparing the system for installing "off-the-shelf" versions of Windows operating system software and automatically integrating optimized HP ProLiant server software drivers and utilities. Users enjoy the following benefits: • An easy-to-use, intuitive graphical interface that guides you through preparing your system for the OS installation process. • Integration of key server software drivers with assisted installation. • Dependency and validity checks to ensure that all supported ProLiant software can be installed. **NOTE:** For the latest information about other related software; please visit the HP Insight Control Management Software Portfolio at: http://h18004.www1.hp.com/products/servers/management/ and the HP ProLiant Easy Set-up CD Web site at www.hp.com/servers/easysetup
	Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides software and driver change notifications for ProLiant products. Sign up at: http://www.hp.com/go/subscriberschoice and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.
	ROMPaq software and latest drivers	The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options, available through ProLiant Support Packs or downloaded from software and drivers download pages website at: http://www.hp.com/go/support.
Industry Standard Compliance	ACPI V3.0a Compliant PCI 2.3 Compliant PXE Support WOL Support IPMI 2.0 compliance	
Manageability	Standard Lights Out 100 1PMI 2.0 reporting HP ProLiant G5 Lights-Out 100c Remote Management Card (Optional HP ProLiant ML110 G5 Easy Set-Up CD	
Security	Power-on password Setup password	
Server Power Cords	12' country specific, lowline NEMA power cord.	

Standard Features

Power Supply	365 Watts
System Fans	1 – non-redundant system fan shipped standard 1 – non-redundant CPU heatsink fan shipped standard
OS Support	Windows 2003/2003 R2 Web edition Windows 2003/2003 R2 Small Business edition Windows 2003/2003 R2 Standard Edition (x86 and x64) Windows 2003/2003 R2 Enterprise Edition (x86 and x64) Windows 2008 Red Hat Enterprise Linux 5 Update 1 (x86 and x64) SLES 10 SP1 (x86 and x64) Netware 6.5 SP7 **NOTE:** For more complete and up-to-date information of all supported OSes for ProLiants, certification information and how to buy server operating systems from HP please visit the OS products site at: http://h18004.www1.hp.com/products/servers/software/OEM.html. **NOTE:** For an up-to-date listing of the latest software and drivers available for your server, please select your server: http://h20000.www2.hp.com/bizsupport/TechSupport/Product.jsp?lang=en&cc=us&taskId=135&prodTypeId=15351&prodCatId=241435. **NOTE:** When installing a Windows OS Environment and configuring the embedded SATA RAID, AHCI, or SAS controllers, installation of a driver from a diskette device is required. The optional USB floppy drive (part number DC361B), or HP 256MB/1GB USB 2.0 Floppy Drive Key is required on the ML110 G5 to accomplish this operation. **NOTE:** For the installation of Windows and other OS's, a floppy drive or HP's USB floppy key (P/N: 442084-B21 or 442085-B21) may be required to complete driver installation. A USB drive key may not work to complete driver installation. **NOTE:** Netware 6.5 SP6 is not supported with the embedded SATA RAID controller.
Factory Express Portfolio for Servers and Storage	HP Factory Express offers configuration, customization, integration and deployment services for HP servers and/or storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging and custom packaging HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers, as well as, the MSA1000, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches. For more information on Factory Express services for your specific server model please contact your sales representative or go to http://www.hp.com/go/factory-express.
HP Enterprise Configurator	The HP eCo-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

Standard Features

Service and Support

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

HP Care Pack Services provide total care and support expertise with committed response designed to meet your IT and business needs.

HP Care Pack services include coverage for the HP branded hardware options qualified for the server that are purchased at the same time or afterward and internal to the enclosure. It also includes the 22" and smaller external monitors and tower UPS options up to 3kVA. These items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included and standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

To fully capitalize on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether an SMB or large global corporation HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime.

Recommended Service – Simplify ProLiant solution implementation, maintenance and management.

- **Support Service** – 3 Year, 9x5 Next Business Day coverage, excluding HP holidays only
- **Deployment Service** – Hardware Installation only

Enhanced Service – Optimize service level to increase IT performance and availability

- **Support Service** – 3 Year 13x5 Same Business Day, 4-Hour response coverage
- **Deployment Service** – Installation and Start-up only

Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays.

For a complete listing of service offerings and information visit:
http://www.hp.com/services/proliantservices
http://www.hp.com/go/proliant/carepack

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see "Configuration Information".

SATA Models

ML110 G5 Pentium E2160 NHP-SATA 444809-xx1	**Processor(s)**	One (1) Dual-Core Intel® Pentium® Processor E2160 (1.8GHz, 65W, 800 FSB, 1MB)
	Cache Memory	1 x 1MB Level 2 cache
	Memory	512 MB PC2-6400 ECC (DDR2-800MHz) (1 x 512 MB)
	Storage Controller	HP Embedded 6 Port SATA Controller with embedded RAID (4 ports for HDD)
	Hard Drive	160 GB SATA HDD
	Internal Storage	Maximum 2.0TB (4 x 500GB) SATA
	Optical Drive	16x SATA DVD-ROM
	Form Factor	Micro ATX Tower (4U)

ML110 G5 Xeon 3065 NHP-SATA 444810-xx1	**Processor(s)**	One (1) Dual-Core Intel® Xeon® Processor 3065 (2.33GHz, 65W, 1333 FSB, 4MB)
	Cache Memory	1 x 4 MB Level 2 cache
	Memory	512 MB PC2-6400 ECC (DDR2-800MHz) (1 x 512 MB)
	Storage Controller	HP Embedded 6 Port SATA Controller with embedded RAID (4 ports for HDD)
	Hard Drive	160GB SATA HDD
	Internal Storage	Maximum 2.0TB (4 x 500GB) SATA
	Optical Drive	16x SATA DVD-ROM
	Form Factor	Micro ATX Tower (4U)

SAS Models

ML110 G5 XEON 3065 NHP-SAS 444811-xx1	**Processor(s)**	One (1) Dual-Core Intel® Xeon® Processor X3065 (2.33GHz, 65W,1333 FSB, 4MB)
	Cache Memory	1 x 4MB Level 2 cache
	Memory	1 GB PC2-6400 ECC (DDR2-800MHz) (1 x 1GB)
	Storage Controller	HP SC40Ge Host Bus Adapter with RAID 0, 1 support
	Hard Drive	72GB SAS HDD
	Internal Storage	Maximum 1.2TB (4 x 300GB) SAS
	Optical Drive	16x SATA DVD-ROM
	Form Factor	Micro ATX Tower (4U)

Country Code Key	XX=00	NA
	XX=01	Australia
	XX=03	UK
	XX=04	Germany
	XX=05	France
	XX=20	Brazil
	XX=29	Japan
	XX=37	AP
	XX=42	Euro
	XX=AA	PRC

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configuration. Contact your local sales representative for information on CTO product offerings and requirements.
NOTE: HP does not allow factory integration of options into standard models listed above. Configure-to-order servers must start with a CTO Chassis.
NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.
NOTE: FIO indicates that this option is a Factory Installable Option.

Step 1: Base Configuration

Models	HP ProLiant ML110G5 NHP CTO Chassis	445607-B21
	Factory Integrated Models ship with:	
	Embedded NC105i PCI Express Gigabit Ethernet Server Adapter	
	Keyboard and Mouse	
	365 Watts, PFC (Power Factor Correcting)	
	Micro ATX Tower (4U)	

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processors	Quad-Core Intel® Xeon® Processor X3220 (2.40 GHz, 95W, 1066 FSB, 8M), FIO	455069-L21
	Quad-Core Intel® Xeon® Processor X3210 (2.13 GHz, 95W, 1066 FSB, 8M), FIO	455068-L21
	Dual-Core Intel® Xeon® Processor E3110 (3.00 GHz, 1333 FSB, 6M),FIO	464376-L21
	Dual-Core Intel® Xeon® Processor X3075 (2.66 GHz, 65W, 1333 FSB, 4M), FIO	450454-L21
	Dual-Core Intel® Xeon® Processor X3065 (2.33 GHz, 65W, 1333 FSB, 4M), FIO	450360-L21
	Dual-Core Intel® Core 2 Processor E4600 (2.40 GHz, 65W, 800 FSB, 2M), FIO	481618-L21
	Dual-Core Intel® Core 2 Processor E4400 (2.0 GHz, 65W, 800FSB,2M), FIO	455070-L21
	Dual-Core Intel® Pentium® Processor E2160 (1.8GHz, 65W, 800 FSB, 1M), FIO	450359-L21
	Single-Core Intel® Celeron® Processor 440 (2.0GHz, 35W, 800 FSB, 512K), FIO	455072-L21
	Single-Core Intel® Celeron® Processor 420 (1.6GHz, 35W, 800 FSB, 512K), FIO	455071-L21

Memory (up to 4)	2 GB Unbuffered PC2-6400 ECC DIMM (1 x 2 GB)	450260-B21
	1 GB Unbuffered PC2-6400 ECC DIMM (1x1 GB)	450259-B21
	512 MB Unbuffered PC2-6400 ECC DIMM(1x512 MB)	450258-B21

Optical Drive	HP Half-Height SATA DVD ROM Kit	447326-B21
	HP Half-Height SATA DVD-RW Optical Kit	447328-B21

Configuration Information-Factory Integrated Models

Hard Drives (up to 4)	**SATA Non-hot Plug**	
	HP 500GB 1.5G SATA 7.2K NHP 3.5" HDD, FIO*	404469-B21
	HP 250GB 1.5G SATA 7.2K NHP 3.5" HDD	411276-B21
	HP 160GB 1.5G SATA 7.2K NHP 3.5" HDD	411275-B21
	* Factory Integrated Only	
	SAS Non-Hot Plug	
	HP 300GB SAS 3.5" 15K NHP	431950-B21
	HP 146GB SAS 3.5" 15K NHP	432093-B21
	HP 72GB SAS 3.5" 15K NHP	432095-B21
	NOTE: The purchase of SAS hard drives requires the purchase of part number 430479-B21, the HP Internal SAS/SATA 4-Port Cable. This cable is standard in the SAS BTO model	

Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Options" section below.
NOTE: Some options may not be factory integratable. Please contact your local sales representative for additional information.

Operating Systems	**Pre-install Microsoft Windows 2003 SBS Standard Edition**	
	MS W2003 SBS R2 Std 1XX FIO Eng SW	432564-xx1
	MS W2003 SBS R2 Prm 1XX FIO Eng SW	432566-xx1

Country Code Key	xx=00	NA
	xx=01	Australia
	xx=03	UK
	xx=04	Germany
	xx=05	France
	xx=06	Italy
	xx=07	Spanish
	xx=20	Brazil
	xx=21	Hungarian
	xx=22	Czech
	xx=24	Polish
	xx=33	Dutch
	xx=37	AP
	xx=42	Euro
	xx=AA	PRC
	xx=29	Japan
	xx=AB	Taiwan
	xx=AD	Korea

Options

Remote Management	HP ProLiant Lights-Out 100c Remote Management Card	
	HP ProLiant 100 G5 Lights-Out 100c Remote Management Card **NOTE:** Supports HP ProLiant DL180 G5, ML110 G5, ML115 G5 and ML150 G5 servers, **NOTE:** For additional information on Lights-Out 100c Remote Management Card, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12468_na/12468_na.html	445513-B21
Processors	Quad-Core Intel® Xeon® Processor X3220 (2.40 GHz, 95W, 1066 FSB, 8M)	455069-B21
	Quad-Core Intel® Xeon® Processor X3210 (2.13 GHz, 95W, 1066 FSB, 8	455068-B21
	Dual-Core Intel® Xeon® Processor X3075 (2.66 GHz, 65W, 1333 FSB, 4M)	450454-B21
	Dual-Core Intel® Xeon® Processor X3065 (2.33 GHz, 65W, 1333 FSB, 4M)	450360-B21
	Dual-Core Intel® Xeon® Processor E4600 (2.00 GHz, 800 FSB, 2M)	481618-B21
	Dual-Core Intel® Pentium® Processor E2160 (1.8 GHz, 65W, 800 FSB, 1M)	450359-B21
	Single-Core Intel® Celeron Processor 440 (2.0 GHz, 35W, 800 FSB, 512K)	455072-B21
	Single-Core Intel® Celeron Processor 420 (1.6 GHz, 35W, 800 FSB, 512K)	455071-B21
Memory (up to 4)	2 GB Unbuffered PC2-6400 ECC DIMM (1 x 2 GB)	450260-B21
	1 GB Unbuffered PC2-6400 ECC DIMM (1 x 1 GB)	450259-B21
	512 MB Unbuffered PC2-6400 ECC DIMM (1x512 MB)	450258-B21
Optical Drives	HP Half-Height SATA DVD ROM Kit	447326-B21
	HP Half-Height SATA DVD-RW Optical Kit	447328-B21
Hard Drives (up to 4)	**SATA - Non-hot Plug**	
	HP 500GB 1.5G SATA 7.2K NHP 3.5" HDD, FIO*	404469-B21
	HP 250GB 1.5G SATA 7.2K NHP 3.5" HDD	411276-B21
	HP 160GB 1.5G SATA 7.2K NHP 3.5" HDD	411275-B21
	*Factory Integrated Only	
	SAS Non-Hot Plug	
	HP 300GB SAS 3.5" 15K NHP	431950-B21
	HP 146GB SAS 3.5" 15K NHP	432093-B21
	HP 72GB SAS 3.5" 15K NHP	432095-B21
	NOTE: The purchase of SAS hard drives requires the purchase of part number 430479-B21, the HP Internal SAS/SATA 4-Port Cable. This cable is standard in the SAS BTO model.	

Options

Storage Controllers	HP SC44Ge Host Bus Adapter	416096-B21
	HP SC11Xe U320 Host Bus Adapter	412911-B21
	HP SC40Ge Host Bus Adapter, FIO	449176-B21
	HP Smart Array E200/128 BBWC Controller	411508-B21
	NOTE: For the installation of Windows and other OS's, a floppy drive (DC361B) may be required to complete driver installation. A USB drive key may not work to complete driver installation.	
	HP SAS/SATA 4-Port Cable **NOTE:** The purchase of a SAS Storage Controller requires the purchase of HP SAS/SATA 4-Port Cable	430479-B21
	NOTE: SAS Storage Controllers will run both SATA and SAS drives.	
Communications	HP NC110T PCI Express Gigabit Server Adapter **NOTE:** Does not support Windows 2000.	434905-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter **NOTE:** Does not support Windows 2000.	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express MFN Gigabit Server Adapter	394791-B21
	Agere 2006 PCI Hi-Speed 56K Modem	440519-B21
Tape Drives	**NOTE:** Installation of SCSI tape drives in a ML110 G5 model requires SCSI controller kit (PN: 412911-B21).	
	NOTE: For complete listing of tape drive offerings see: http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html	
	DAT USB Tape Drives	
	HP StorageWorks DAT 40 USB Internal Tape Drive (Carbonite)	DW022A
	HP StorageWorks DAT 72 USB Internal Tape Drive (Carbonite)	DW026A
	HP StorageWorks DAT 160 USB Internal Tape Drive	Q1580A
	DAT SAS Tape Drives	
	HP StorageWorks DAT 160 SAS Internal Tape Drive	Q1587A
	DAT SCSI Tape Drives	
	HP StorageWorks DAT 40 SCSI Internal Tape Drive (Carbon)	C5686C
	HP StorageWorks DAT 72 SCSI Internal Tape Drive (Carbon)	Q1522B
	HP StorageWorks DAT 160 SCSI Internal Tape Drive	Q1573A

Options

HP D2D Backup System	HP StorageWorks D2D110 Backup System **NOTE:** 1TB of Disk Storage.	EH880A
	HP StorageWorks D2D110 Backup System with Data Protector Express Software Kit **NOTE:** 1TB of Disk Storage.	EH923A
	HP StorageWorks D2D120 Backup System **NOTE:** 2TB of Disk Storage.	EH884A
	HP StorageWorks D2D120 Backup System with Data Protector Express Software Kit **NOTE:** 2TB of Disk Storage.	EH924A
	HP StorageWorks D2D130 Backup System **NOTE:** 3TB of Disk Storage.	EH950A
	HP StorageWorks D2D130 Backup System with Data Protector Express Software Kit **NOTE:** 3TB of Disk Storage.	EH951A
	HP StorageWorks D2D130 Backup System with LTO-3 Ultrium 920 SAS Tape Drive **NOTE:** 3TB of Disk Storage.	EH952A
	NOTE: Please see the HP D2D Backup Systems QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12651_div/12651_div.html (Worldwide	
Installation of Server into Racks	Monitor/Utility Shelf	253449-B21
	ProLiant Rack Enabling Kit	417705-B21
Lights Out Management Card	HP ProLiant ML100 G5 Lights-Out 100c Remote Management Card **NOTE:** Supports HP ProLiant DL180 G5, ML110 G5, ML115 G5 and ML150 G5 servers, **NOTE:** For additional information on Lights-Out 100c Remote Management Card, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12468_div/12468_div.html	445513-B21
UPS	HP T1000 UPS, JPN/TWN	AF404A
	HP T1000 UPS, NA	AF403A
	HP T1000 UPS, INTL	AF405A
	HP T750 UPS, Low Voltage (NA/JPN)	378439-D71
	HP T750 UPS, High Voltage (INTL)	378439-B31
	HP 1.83m 10A C13 CH Power Cord	AF565A
	HP 1.83m 10A C13 DK Power Cord	AF566A
	HP 1.83m 10A C13 EU Power Cord	AF568A
	HP 1.83m 10A C13 IL Power Cord	AF564A
	HP 1.83m 10A C13 UK Power Cord	AF570A
	HP 1.83m C13 IT/CL Power Cord	AF571A
	HP 2m C13 JPN Power Cord	AF572A
	HP PWR CRD 2.5m 10A C13-ARGENTINA	AF558A
	HP PWR CRD 1.83m 10A C13-BRAZIL	AF559A
	HP PWR CRD 1.83m 10A C13-CHINA	AF557A
	HP PWR CRD 1.83m 10A C13-UL DOM	AF556A

USB Options	HP USB 04 Standard Keyboard	DT528A#xxx
	USB Floppy Drive	DC361B
	HP 1GB USB 2.0 Floppy Drive Key	442085-B21
	HP 256MB USB 2.0 Floppy Drive Key	442084-B21
	1.44MB External USB Floppy Drive ALL	DC141B
	HP USB 2-Button Optical Mouse ALL	DC172B
HP KVM Switch Options	HP 1x4 Console Switch	AF611A
	HP PS2 Server Console Cable, 6 foot, 2-Pack	AF612A
	HP USB Server Console Cable, 6 foot, 2-Pack **NOTE:** required for supporting USB peripherals.	AF613A

NOTE: For additional information regarding KVM Switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm

Service and Support Offerings (HP Care Pack Services)	**Extended Care - Minimum recommended service support level**	
	Next Business Day On-Site Service, 9-Hour x 5-Day Coverage, 3 Years, Electronic	U4433E
	Committed Care - Cost-effective service options designed to extend HP Services committed response and guaranteed fix times, designed to speed problem resolution.	
	4-Hour On-Site Service - 13-Hour x 5-Day Coverage, 3 Years, Electronic	U4434E
	Committed Response - Optimum service level to increase IT Performance and availability	
	4-Hour On-Site Service - 24-Hour x 7-Day Coverage, 3 Years, Electronic	U4435E
	Deployment Services - HP Installation and Start Up services designed to take time, risk, and worry out of the deployment of ProLiant servers - and free customers people to focus on what they do best, their business.	
	Hardware Installation, Electronic (install services)	U4444E
	NOTE: For more information, customer/resellers can contact: http://www.hp.com/services/carepack.	

HP ProLiant ML110 G5 Models

Standard Memory

SATA Models: 512 MB of PC2-6400 DDR2 SDRAM running at 800MHz with ECC capabilities Memory installed (1 x 512 MB SDRAM DIMM).
SAS Models: 1024 MB of PC2-6400 DDR2 SDRAM running at 800MHz with ECC capabilities Memory installed (1x 1024 MB SDRAM DIMM)

Standard Memory Plus Optional Memory

Up to 5120 MB (SAS Model 6144 MB) memory is available with the optional installation of 2 x 2048 MB +1 x 512 MB PC2-6400 un-buffered ECC DDR2 SDRAM DIMM Memory kits. (SAS Model 2 x 2048 MB + 1x 1024 MB)

Standard Memory Replaced with Optional Memory

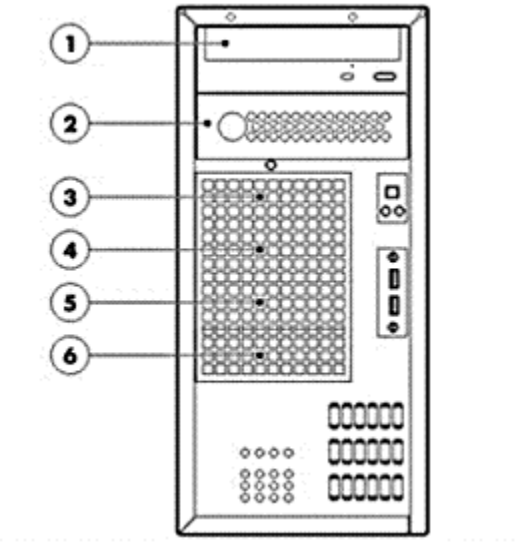
Up to 8GB of memory is available with the removal of the standard 512 MB (SAS model: 1024 MB) of memory and the optional installation of 4x 2048 MB PC2-6400 un-buffered ECC DDR2 SDRAM DIMM Memory kits.

NOTE: The below chart does not represent all possible memory configurations.
NOTE: For best performance, it is recommended that customer installs memory in identical pairs (slots 1 and 3 are interleaving pair. Slots 2 and 4 are interleaving pair)

Memory		Slot			
		4	3	2	1
Standard	512 MB	Empty	Empty	Empty	512 MB
Optional	3GB	1GB	512 MB	1GB	512 MB
Maximum	8GB	2GB	2GB	2GB	2GB

Following are memory options available from HP:

2 GB Unbuffered PC2-6400 ECC DIMM (1 x 2 GB)	450260-B21
1 GB Unbuffered PC2-6400 ECC DIMM (1 x 1 GB)	450259-B21
512 MB Unbuffered PC2-6400 ECC DIMM (1x512 MB)	450258-B21



1 16x SATA DVD-ROM

2 Removable Media Bays (5.25" each)

3, 4, 5, 6 Four Non-Hot Plug Drive Bays

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
DVD Drive	2	1 or 2	Integrated SATA
DVD-RW Drive	2	1 or 2	Integrated SATA

Hard Drives (SATA Models only)

SATA 1.5Gb – Non-Hot Plug

	Quantity Supported	Position Supported	Controller
3.5-inch 160 GB 7.2K, SATA 250 GB 7.2K SATA 500 GB 7.2K SATA	Up to 4	3,4,5,6	6 Port SATA controller with Embedded RAID on Motherboard

Hard Drives (SAS Models only)

SAS – Non-Hot Plug

	Quantity Supported	Position Supported	Controller
3.5-inch 72 GB 15K SAS 146 GB 15K SAS 300 GB 15K SAS	Up to 4	3,4,5,6	HP 4 Internal Port SAS HBA SC40Ge with RAID (0,1)

Storage

Maximum Storage Capacity – SATA/SAS Models

Internal	**SATA**	640GB (4x160 GB (BTO) 2TB (4 x 500 GB (CTO)
	SAS	1.2TB (4x300 GB)

Tape Drives and D2D Backup System

NOTE: Installation of SCSI tape drives in a ML110 G5 model requires SCSI controller kit (PN: 412911-B21).
NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/division/10233.html (Worldwide)

	Position Supported	Controller	Controller/HBA Option Kit Part Number
Internal USB Tape Drives DAT 40 USB DAT 72 USB DAT 160 USB	2	USB 2.0 port	N/A
External USB Tape Drives DAT 40 USB DAT 72 USB DAT 160 USB	External	USB 2.0 port	N/A
Internal SAS Tape Drives DAT 160 SAS	2	HP SC44Ge Host Bus Adapter	416096-B21
External SAS Tape Drives DAT 160 SAS	External	HP SC44Ge Host Bus Adapter	416096-B21
Internal SCSI Tape Drives DAT 40 DAT 72 DAT 160	2	HP SC11Xe Host Bus Adapter	412911-B21
External SCSI Tape Drives DAT 40 DAT 72 DAT 160	External	HP SC11Xe Host Bus Adapter	412911-B21
HP StorageWorks D2D Backup Systems D2D110 D2D120 D2D130	External	Embedded Network Controller	N/A

Power Specifications

Part Number	445067-001
Spare Kit	457884-001
Operational Input Voltage Range (Vrms)	100 to 127 and 200 to 240 V auto ranging
Frequency Range (Nominal) (Hz)	50 to 60 Hz

Nominal Input Voltage (Vrms)	**100**	**120**	**200**	**230**	**240**
Max Rated Output Wattage Rating	365	365	365	365	365
Nominal Input Current (A rms)	6	N/A	3	N/A	N/A
Max Rated Input Wattage Rating (Watts)	N/A	N/A	N/A	N/A	N/A
Max. Rated VA (Volt-Amp)	600	N/A	N/A	N/A	N/A
Efficiency (%)	>65%	>65%	>65%	>65%	>65%
Power Factor	N/A	N/A	N/A	N/A	N/A
Leakage Current (mA)	N/A	<0.45mA	N/A	N/A	N/A
Maximum Inrush Current (A peak)	N/A	No component was damaged and input fuse shall not blow	N/A	No component was damaged and input fuse shall not blow	N/A
Maximum Inrush Current duration (mS)	N/A	N/A	N/A	N/A	N/A

System Specifications

	Power **
HP ProLiant ML110 G5 Fully Configured	(see **)
Fully Loaded System output Wattage (W)	365W
Fully Loaded System Input Current (A rms)	6A @ 100V, 3A @ 200V
Fully Loaded System Thermal (BTU-Hr)	1915BTU
Fully Loaded System VA (Volt-Amp)	600 VA
System Leakage with all power supplies loaded (mA)	0.45mA@120V
System Inrush Current with all power supplies loaded (A)	<150A@ 240Vac
Power cord requirements	Nema 5-15P to IEC320-C13
	IEC320-C13 to IEC320-C14
	**Power shown is for a fully configured system consisting of (1) CPU, (4) double-sided DIMMs, (4) HDDs, (2) DVD-ROM, (4) PCI cards, and (1) power supply.

Power Cords (13 Cord Sets)	**Power Cord Part Number**
Country	
APD	100614-009, 100613-008, 139867-005, 187487-001 (India)
Brazil	285052-001
Australia	100661-001
Euro	100614-009
France	100614-009
Germany	100614-009
Japan	139867-005
PRC	286496-001
UK	100613-008
US, Taiwan	121565-001

System Unit	**Dimensions** (HxWxD) (with feet)	14.5 x 6.9 x 16.8 in (36.7 x 17.5 x 42.6 cm)	
	Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	39 lb (17.5 kg)
		Minimum (one hard drive, power supply, and processor installed)	23.81 lb (10.8 kg)
	Input Requirements (per power supply)	Rated Line Voltage	90 to 132 VAC, 180 to 264 VAC
		Rated Input Current	6 A (at 100 VAC), 3 A (at 200 VAC)
		Rated Input Frequency	47 to 63 Hz
		Rated Input Power	600 W (at 100 VAC), 600 W (at 200 VAC)
	Power Specifications	To review typical system power ratings use the Power Calculator which is available via the online tool located at URL: http://h30099.www3.hp.com/configurator/calc/Power%20Calculator%20Catalog.xls - Click on the system of interest. Example: DL380 G5 - Follow the instructions of the next screens.	
	Power Supply Output (per power supply)	Rated Steady-State Power	365 W (at 100 VAC), 365 W (at 200 VAC)
		Maximum Peak Power	385 W (at 100 VAC), 385 W (at 200 VAC)
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating	10% to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).		
		SATA Model		
		Idle		
		L WAd	4.2 Bels	
		L pAm	26 dBA	
		Operating		
		L WAd	5.1 Bels	
		L pAm	34 dBA	
		SAS Model		
		Idle		
		L WAd	5.2 Bels	
		L pAm	34 dBA	
		Operating		
		L WAd	5.7 Bels	
		L pAm	40 dBA	
HP 160GB 1.5G SATA 7.2K NHP 3.5" HDD 411275-B21	**160GB 7,200 rpm**	**Capacity**	160,041 MB	
		Height	1.0 in. (26.1 mm)	
		Width	4.0 in. (101.6 mm)	
		Interface	Serial ATA	
		Transfer rate synchronous (maximum)	1.5 Gb/s	
		Seek time (typical reads, including settling)	Single track	0.9 ms
			Average	9.0 ms
			Full-stroke	17.8 ms
			Rotational speed	7,200 rpm
		Physical Configuration	Bytes/Sector	512
			Logical Blocks	312,581,808
		Operating Temperature	41° to 131° F (5° to 55° C)	

Technical Specifications

NHP 72GB 3G SAS 15K 3.5" HDD 432095-B21	**72GB 15K**	**Capacity**	73,407,856,856	
		Height	1.0 in (25.4mm)	
		Width	4.0 in. (101.6 mm)	
		Interface	SAS	
		Transfer rate synchronous (maximum)	3 Gb/sec	
		Seek time (typical reads, including settling)	Single track	0.27 ms
			Average	3.5 ms
			Full-stroke	3.5 ms
			Rotational speed	15,000 rpm
		Physical Configuration	Bytes/Sector	512
			Logical Blocks	143,374,737
		Operating Temperature	50° to 95° F (10° to 35° C)	

16X Max SATA DVD-ROM Drive	**Disk**	Applicable Disk	CD-ROM, CD-XA, CD-DA (Mode 1, Mode 2, Form 1 and 2) Photo CD (Single and Multi-session) CD-R, CD-RW Mixed Mode (Audio and Data combined) DVD-ROM DVD-R/RW, DVD+R/RW CD-R, CD-RW, DVD-ROM, DVD+R, DVD+RW
		Capacity	4.7 GB (DVD-5) 8.54 GB (DVD-9)
	Block Size	DVD Media	2,048 bytes
	Interface	SATA	
	Access Times (typical)	Random	<140 ms
		Full-Stroke	<250 ms
	Data Transfer Rate	Sustained	8100 to 21600 KB/s (6X to 16X)
		Bus Rate	1.5 Gbps
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7 seconds	
	Stop Time	< 4 seconds	
	Laser Parameters	Type	Semiconductor Laser GaA1As
		Wave Length	780 ± 25 nm
	Operating Conditions	Temperature	41° to 122° F (5° to 50° C)
		Humidity	10% to 90%
	Dimensions	(HxWxD, maximum)	1.7 x 5.85 x 8.11 in (42.9 x 150 x 195 mm)
		Weight	2.64 lb (1.2 kg)

Technical Specifications

HP 4 Internal Port SAS Host Bus Adapter (SAS/SATA HP Model)	**SATA Protocol**	SATA 1.5Gb/s
	SATA Ports	4 internal
	Port transfer rate	1.5 Gb/s total
	Maximum Capacity	up to 3 TB (4 x 750GB non hot plug SATA HDD)
	RAID Levels Supported	RAID 1 (Mirroring) RAID 0 (Striping)
	Logical RAID Volumes Supported	2
	Dimensions (excluding bracket)	6.6 x 2.5 x 0.6 in (16.8 x 6.4 x 1.6 cm)
	Disk Drive and Enclosure Protocol Support	3 Gbps SAS (Serial Attached SCSI) 1.5 Gbps SATA (Serial Advanced Technology Attachment)
	Architecture	64-bit
	SAS Connectors	1 internal SFF8484 x4 Wide SAS Connectors 12 Gbps per x4 Wide SAS Port (4 x 3 Gbps)
	Data Transfer Method	PCI-Express x8 - 2 GB/s maximum bandwidth
	PCI Bus Speed	PCI-Express x8
	Simultaneous Drive Transfer Ports	1 x4 Wide SAS Connectors
	Port Transfer Rate	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
	Software upgradeable Firmware	Yes
	Maximum Capacity	1.2TB (4 x 300GB)
	Memory Addressing	64-bit, supporting servers memory greater than 4 GB
	Logical Drives Supported	Up to 2 Logical Volumes Up to 10 drives total in all RAID volumes Up to 2 Drives per RAID 1 Up to 4 Drives per RAID 0
	RAID Support	RAID 1 (Mirroring) RAID 0 (Striping)
	Upgradeable Firmware	4-MB flashable ROM
	Disk Drive and Enclosure Protocol Support	3 Gbps SAS and 1.5 Gbps SATA

Technical Specifications

HP SC40Ge SAS Host Bus Adapter with RAID	**RAID Support**	RAID 1 (Mirroring) RAID 0 (Striping)
	Logical Drives Supported	Up to 2 Logical Volumes Up to 10 drives total in all RAID volumes Up to 2 Drives per RAID 1 Up to 8 Drives per RAID 0
	Maximum Capacity	3.6TB (8 x 450GB)
	Data Transfer Method	PCI-Express x8 - 2 GB/s maximum bandwidth
	Port Transfer Rate	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
	Simultaneous Drive Transfer Ports	2 x4 Wide SAS Connectors
	Protocols	3 Gbps SAS and 1.5 Gbps SATA 1.5 Gbps SATA (Serial Advanced Technology Attachment)
	External SAS Connectors	None
	Internal SAS Connectors	2 internal SFF8484 x4 SAS Connectors
	Upgradeable Firmware	4MB flashable ROM

HP E200/128 BBWC Smart Array Controller	**Dimensions** (excluding bracket)	6.6 x 2.5 x 0.6 in (16.8 x 6.4 x 1.6 cm)
	Disk Drive and Enclosure Protocol Support	3 Gbps SAS (Serial Attached SCSI) 1.5 Gbps SATA (Serial Advanced Technology Attachment)
	Architecture	64-bit
	SAS Connectors	2 internal SFF8484 x4 Wide SAS Connectors 12 Gbps per x4 Wide SAS Port (4 x 3 Gbps)
	Data Transfer Method	PCI-Express x8 - 2 GB/s maximum bandwidth
	PCI Bus Speed	PCI-Express x8
	Simultaneous Drive Transfer Ports	2 x4 Wide SAS Connectors
	Port Transfer Rate	12 Gb/s per x4 Wide SAS Port (4 x 3 Gb/s)
	Software upgradeable Firmware	Yes
	Maximum Capacity	3.6TB (8 x 450GB)
	Memory Addressing	64-bit, supporting servers memory greater than 4 GB
	Logical Drives Supported	<FILL IN>
	RAID Support	RAID 1 (Mirroring) RAID 0 (Striping) RAID 5
	Upgradeable Firmware	4-MB flashable ROM
	Disk Drive and Enclosure Protocol Support	3 Gbps SAS and 1.5 Gbps SATA

Technical Specifications

Embedded NC105i PCIe Gigabit Server Adapter	**Network Interface**	Integrated 10/100/1000BASE-T Transceiver Combines a triple-speed IEEE 802.3TM – Compliant Media Access Controller (MAC) with a triple-speed Ethernet transceiver.	
	Data Transfer Method	Compliant to x1 PCIe Specification	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000Mb/s
	Connector	RJ-45 connector	
	Cable Support	Performs all the physical layer functions for 10BASE-T, 100BASE-T, and 1000BASE-T Ethemet on standard Category 5 UTP	

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1 GB = 1 billion bytes. Actual formatted capacity is less.